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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,559

03/26/2007

Koji Hasegawa

2006-0733A

3251

513

7590

11/24/2009

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EXAMINER

TADESSE, YEWEBDAR T

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

11/24/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,559	<b>Applicant(s)</b> HASEGAWA ET AL.	
	<b>Examiner</b> YEWEBDAR T. TADESSE	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/06, 5/08 &amp; 11/08</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Cosentino et al (US 4,702,932).
3. Cosentino et al discloses (see Fig 2) a coating apparatus comprising: a rotary drum (20) is rotated around an axis inclined with respect to a horizontal line, and has an opening at one end on an inclination upper side; a spray nozzle unit (24, 25) placed in the rotary drum, wherein the spray nozzle unit is removably attached to a swing arm (14); the swing arm (23) is swingable around a swing pivot set outside of the rotary drum; and owing to a swing operation of the swing arm, the spray nozzle unit is capable of being moved between an inside and an outside of the rotary drum.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giogoli (US 6,557,486) in view of Pentecost (US 6,511,541).

With respect to claim 1, Giogoli discloses (see Figs 1-2) a coating apparatus comprising: a rotary drum (1); a spray nozzle unit placed in the rotary drum and has an opening at one end on an upper side, wherein the spray nozzle unit is removably attached to a swing arm (14) ; the swing arm is swingable around a swing pivot set outside of the rotary drum; and owing to a swing operation of the swing arm, the spray nozzle unit is capable of being moved between an inside and an outside of the rotary drum. Giogoli lacks teaching a rotary drum rotating around an axis inclined with respect to a horizontal line. However, the use of tilted drum is well known in the art; for instance as taught by Pentecost (see column 2, lines 30-67 and Fig 2). It would have been obvious to

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one of ordinary skill in the art at the time the invention was made to tilt the drum in Giogoli to discharge the material through the outlet by gravity as taught by Pentecost.

As to claims 2-3 and 5, Giogoli lacks specifically teaching a liquid tube of spray solution, a liquid tube holder and an air tube of compressed air connected to the spray nozzle unit. Pentecost discloses a liquid line (50), a compressed air tube (52, 56), a liquid tube holder (48) holding a liquid tube connected to the spray nozzle unit, the liquid tube holder is removably attached to the swing arm (boom 34) and the compressed air tube (52) is inserted in the swing arm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a liquid line and a compressed air connected to the spray nozzle unit to continuously supply the coating material and atomize the coating solution in uniformly applying the coating material to the particulate material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to removably attach the liquid tube holder to the swing arm to facilitate maintenance operations.

7. Claims 4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giogoli (US 6,557,486) in view of Pentecost (US 6,511,541) as applied to claim 1 and further in view of Hasegawa et al (US 2006/0096527).

Giogoli lacks teaching discharging path of the particle product formed of a surface with unevenness. Hasegawa et al discloses (see paragraph 92 and Fig 13) discharge path having discharge guide parts (21g). It would have been

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obvious to one of ordinary skill in the art at the time the invention was made to include a surface with unevenness formed at the discharge path to discharge the entire product with a good efficiency as taught by Hasegawa et al (see paragraph 37).

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gross (US 3,357,398) also discloses a tilted drum (see Fig 3).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YEWEBDAR T. TADESSE whose telephone number is (571)272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yewebdar T Tadesse/  
Primary Examiner, Art Unit 1792